




Doc Code: AP.PRE.REQ

PTO/SB/33 (07-05)

Approved for use through xx/xx/200x. OMB 0651-00xx

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) R2184.0307/P307	
	Application Number 10/803,931-Conf. #6728	Filed March 19, 2004	
	First Named Inventor Masaaki Yoshida et al.		
	Art Unit 2891	Examiner D. M. Menz	
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <p><input type="checkbox"/> applicant /inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input type="checkbox"/> attorney or agent of record. Registration number _____</p> <p><input checked="" type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. <u>55,440</u></p> <p> Signature Jennifer M. McCue Typed or printed name</p> <p>(202) 420-2760 Telephone number</p> <p>March 19, 2007 Date</p> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p> <p><input type="checkbox"/> *Total of _____ forms are submitted.</p>			



Docket No.: R2184.0307/P307  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

---

In re Patent Application of:  
Masaaki Yoshida et al.

Application No.: 10/803,931

Confirmation No.: 6728

Filed: March 19, 2004

Art Unit: 2891

For: SEMICONDUCTOR DEVICE HAVING A  
PLURALITY OF KINDS OF WELLS AND  
MANUFACTURING METHOD THEREOF

---

Examiner: Douglas M. Menz

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

MS AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Applicants respectfully request a review of the legal and factual bases for the rejections in the above-identified patent application. Pursuant to the guidelines set forth in the Official Gazette Notice of July 12, 2005 for the Pre-Appeal Brief Conference Program, favorable reconsideration of the subject application is respectfully requested in view of the following remarks.

Claims 1-8 are rejected under 35 U.S.C. § 102 as being anticipated by Joy et al. (U.S. Patent No. 4,697,332) ("Joy").

The claimed invention relates to a semiconductor device with three or more types of wells, in which only one step level difference is formed on the surface of the substrate and in which the maximum level difference between the surface heights of the wells is reduced (Specification, page 8, lines 19-25). This may be accomplished by covering the oxide over the first well with a nitride film during growth of the oxide over the second well (Figs. 3A-3G). Alternatively, it may be accomplished by growing the oxide layers over each of the first and second wells in the same step (Figs. 4A-4E). After each of these alternatives, the third well is formed, between each of the previously formed wells, with a surface height that is higher than that of the first and second wells.

Applicants respectfully submit that Joy does not disclose, teach or suggest the claimed invention. Particularly, Joy does not disclose, teach or suggest that at “least one kind of well has a top surface height level higher than the top surface height levels of the other two kinds of wells in relation to the top surface of said substrate, wherein said other two kinds of wells have substantially the same top surface height level as each other.” (emphasis added).

Joy’s drawings, including Fig. 8g, are not to scale and cannot be used to establish proportions of elements. See M.P.E.P. § 2125. Moreover, Joy’s description of Figs. 7a and 8a-8h makes it clear that Joy cannot form a device as claimed in the present application. The method shown and described by Joy in connection with Figs. 7a and 8a-8h is essentially the same as the prior art described in Applicants’ specification in connection with Applicants’ Figs. 1A-1G. The figures correspond as follows: Joy Fig. 8b corresponds to Applicants’ Fig. 1A; Fig. 8d corresponds to Fig. 1B; Fig. 8e corresponds to Fig. 1D; Fig. 8f corresponds to Fig. 1E; Fig. 8g corresponds to Fig. 1F; and Fig. 8h corresponds to Fig. 1G.

In particular, the wells 65 and 68 (Fig. 8g) of Joy cannot have the same top surface height. When oxide 69 is grown over well 68, oxide 66 (of the first formed well 65) is not protected. Therefore, as described both in Joy and in the present application, oxide 66 will thicken during growth of oxide 69; the surface of well 65 will, therefore, become lower than the surface of well 68. Compare Joy, column 9, lines 5-12 to Applicant's specification, page 5, lines 12-17. The result is substantially the same as that shown in Fig. 1E of the present application. Although the drawings of Joy might seem to show, out of context, that the surfaces of wells 65 and 68 are at the same height, upon reading the specification and applying the knowledge of one skilled in the art, it is apparent that this result was not actually possible, and therefore Joy does not disclose or suggest it.<sup>1</sup>

Joy fails to disclose, teach or suggest that at "least one kind of well has a top surface height level higher than the top surface height levels of the other two kinds of wells in relation to the top surface of said substrate, wherein said other two kinds of wells have substantially the same top surface height level as each other." This is an important aspect of the claimed invention. Since Joy does not disclose the claimed invention, the rejection under 35 U.S.C. § 102 should be withdrawn.

Applicants reserve the right to pursue additional arguments on appeal, especially with respect to the dependent claims.

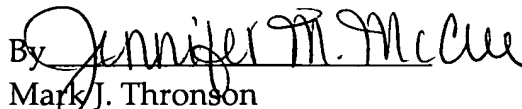
---

<sup>1</sup> Applicants note that the Examiner seems to be mischaracterizing this argument in the Advisory Action dated February 12, 2007. Applicants do not concede that the drawings of Joy show the surfaces at the same height, but instead argue that they "might seem to show" this, when taken out of context of the specification and the knowledge of one skilled in the art.

Applicants respectfully submit that the pending claims are patentable over Joy.  
Favorable consideration and a Notice of Allowance are solicited.

Dated: March 19, 2007

Respectfully submitted,

By   
Mark J. Thronson

Registration No.: 33,082

Jennifer M. McCue

Registration No.: 55,440

DICKSTEIN SHAPIRO LLP

1825 Eye Street, NW

Washington, DC 20006-5403

(202) 420-2200

Attorneys for Applicant